

tion for playing the upper or lower records or the left and right record, whichever the case may be.

The juke box phonograph system of this invention also includes a record-now-playing indicator which is formed by mounting an indicating light on the tone arm transport carriage, which indicating light would illuminate a numbered panel having indicia corresponding to the records in the stack. Therefore, the indicia illuminated by the light while a record is playing indicates which record is then and there being reproduced.

The phonograph system of this invention, when used as a juke box, can incorporate a playmeter system. This would consist of a pendulum-type mechanism which, when cocked and released, strikes upon a row of pins adjacent to the record stack. The pendulum would swing when the tone arm mechanism starts movement. This arrangement would be mounted on the tone arm carriage or transport plate and would thereby automatically be positioned in front of the specific pin related to the record being played.

The phonograph system of the present invention has substantial advantages in that it is modular in construction and none of the modules interfere with other modules during replacement for servicing.

Many other objects, features and advantages of this invention will be more fully realized and understood from the following detailed description when taken in conjunction with the accompanying drawings wherein like reference numerals throughout the various views of the drawings are intended to designate similar elements or components.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a juke box utilizing the phonograph system of this invention;

FIG. 2 is a fragmentary perspective view of the phonograph system of this invention with portions of the exterior walls thereof broken away to illustrate the mechanical components;

FIG. 3 is a sectional view of a coupling arrangement for stacking a plurality of records on a common axis for simultaneous rotation;

FIG. 4 is a top view of the coupling element of FIG. 3;

FIG. 5 is a bottom view of the coupling element of FIG. 3; and

FIG. 6 is an exploded view illustrating the assembly of the coupling elements for clamping together a plurality of spaced-apart stacked records.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENT

Referring now to FIG. 1 there is seen a diagrammatic representation of a juke box housing structure designated generally by reference numeral 10 and which provides a housing for a phonograph system constructed in accordance with the principles of this invention. The housing 10 includes an upper cabinet portion 11 for containing the mechanical components of the phonographic system and a lower cabinet portion 12 for containing the speaker system. The lower cabinet portion 12 may also include the power supply and audio amplifier components necessary for reproducing sound from record means or the like.

The housing 10, in the illustrated embodiment, includes a front wall 13 formed on the upper portion 11 to provide a surface for containing a plurality of indicia designated generally by reference numeral 14. The

indicia 14 corresponds to information of the record selections available in the juke box. The indicia 14 is here illustrated as being horizontally disposed and vertically spaced-apart and corresponding in number to the number of selections available. For example, the number of selections available in the illustrated embodiment may be 40, this corresponding to 20 records having an individual play on each side of each record.

The juke box housing 10 includes coin receptacle means 16 associated with coin-operated actuating mechanisms, of any suitable well-known type, for initiating operation of the electronic and electrical components within the cabinet. Also associated with the coin-actuated mechanism may be credit-accumulating means for enabling bonus credit selections. For example, a single coin of a given monetary value may provide a single selection while a coin of greater monetary value may provide three or more selections. Furthermore, the credit accumulator may include means for accumulating coin credits of lower denomination coins.

Most advantageously, the juke box structure 10 includes a slide element 17 vertically movable along a linear path and immediately adjacent the vertical arrangement of indicia. The slide element 17 includes a pointer 18 which is close to numbers or the like corresponding to the numbers of plays which can be selected. A release element 19, when depressed, enables the slide member 17 to be moved vertically so that the pointer 18 can be placed next to the desired selection. A pair of slots 20 and 21 are formed in the front wall 13 and means pass through the slots between the slide element 17 and guide rods within the cabinet, to be described hereinbelow, to provide support for the slide element. An actuator or selection button 23 is also mounted on the slide member 17 and is used to effect the selection of a record when the slide member 17 is positioned so that the pointer 18 is adjacent the indicia corresponding to the desired record. The slide member 17, therefore, provides a substantial improvement in record selection in that it greatly simplifies the selection process and the mechanism required. Prior art devices using push buttons containing letters and numbers are complicated whereas a single slide member movable along a path and providing means to point to the desired selection is a much simpler approach. Furthermore, the slide member 17 may include locking and unlocking means as well as including the selector button 23 for finalizing the selection once the slide element is in its desired position.

Referring now to FIG. 2 there is seen a perspective view of a phonograph system constructed in accordance with the principles of this invention and wherein fragmentary portions of the surrounding housing are broken away for clarity. Here it can be seen that a plurality of spaced-apart records 24 are supported about a central axis passing therethrough. The records 24 are supported on a modular shaft comprising a plurality of spacers or couplings 26 located between each record. The overall structure of the couplings 26 will be described in greater detail hereinbelow. Suffice it to say that the records 24 are mounted upon a central shaft member and adapted to be rotated at playing speed simultaneously when any one of the records is played. The records 24 are mounted between support plates 27 and 28 which, in turn, are maintained in parallel spaced-apart alignment by support rods 29, 30 and 31. While only three support rods are illustrated herein, it will be understood that more or less support rods can